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RAW SEQUENCE LISTING

DATE: 01/02/2002

PATENT APPLICATION: US/09/847,519A

TIME: 09:26:46

Input Set : A:\422.app

Output Set: N:\CRF3\01022002\I847519A.raw

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3 <110> APPLICANT: Luche, Ralf M.
4     Wei, Bo
8 <120> TITLE OF INVENTION: DSP-14 DUAL-SPECIFICITY PHOSPHATASE
11 <130> FILE REFERENCE: 200125.422
13 <140> CURRENT APPLICATION NUMBER: US 09/847,519A
14 <141> CURRENT FILING DATE: 2001-05-01
17 <160> NUMBER OF SEQ ID NOS: 17
19 <170> SOFTWARE: PatentIn Ver. 2.1
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 1165
23 <212> TYPE: DNA
24 <213> ORGANISM: Homo sapiens
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28 cgcgccagg ccccggcaca ccagctgca gaaaggagag aaaatccctt ggctctaaaa 120
29 tgacatctgg agaagtgaag acaagcctca agaatgccta ctcatctgcc aagaggctgt 180
30 cgccgaagat ggaggaggaa ggggaggagg aggactactg cacccttgga gcctttgagc 240
31 tggagcggct cttctggaag ggcagtcccc agtacacca cgtcaacgag gtctggccca 300
32 agctctacat tggcgatgag gcgacggcgc tggaccgcta taggctgcag aaggcggggt 360
33 tcacgcacgt gctgaacgcg gccacgggcc gctggaacgt ggacactggg cccgactact 420
34 accgcgacat ggacatccag taccacggcg tggaggccga cgacctgccc accttcgacc 480
35 tcagtgtctt cttctaccg gcggcagcct tcacgcagag agcgctaagc gacgaccaca 540
36 gtaagatcct ggttcaactg gtcattggcc gcagccggtc agccacctg gtcctggcct 600
37 acctgatgat ccacaaggac atgaccttg tggacgccat ccagcaagtg gccagaacc 660
38 gctgcgtcct cccgaaccgg ggctttttga agcagctccg ggagctggac aagcagctgg 720
39 tgcagcagag gcgacgggcc cagcgccagg acggtgagga ggaggatggc agggagctgt 780
40 agggccgact cacaggcca gcagggcac ttggggagag aggggagagg cagaacatag 840
41 ccctggccta ggactccaga gaagggatgg tgaaaccgaa gctcgactct tccaaacat 900
42 cttgttcaac ttcccatgt gtgctgggga caggaggagc ccagagctgc ccccgggcag 960
43 agctgagcgc tcagcctctc agcaaaatgg gagggacggg ctccccggct ctgggtcaca 1020
44 gaggagcatg ccacgtgca ccaagtctcc tgctttggtt ttgttttttt ggtgagaagg 1080
45 aagagggaaa aagattttta aaatgtgtag gcagtatggt gtgattaaac gtttggtttt 1140
46 gtccaaaaaa aaaaaaaaaa aaaaaa 1165
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 220
51 <212> TYPE: PRT
52 <213> ORGANISM: Homo sapiens
54 <400> SEQUENCE: 2
55 Met Thr Ser Gly Glu Val Lys Thr Ser Leu Lys Asn Ala Tyr Ser Ser
56 1 5 10 15
58 Ala Lys Arg Leu Ser Pro Lys Met Glu Glu Gly Glu Glu Asp
59 20 25 30
61 Tyr Cys Thr Pro Gly Ala Phe Glu Leu Glu Arg Leu Phe Trp Lys Gly
62 35 40 45
64 Ser Pro Gln Tyr Thr His Val Asn Glu Val Trp Pro Lys Leu Tyr Ile
65 50 55 60
67 Gly Asp Glu Ala Thr Ala Leu Asp Arg Tyr Arg Leu Gln Lys Ala Gly

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68 65          70          75          80
70 Phe Thr His Val Leu Asn Ala Ala His Gly Arg Trp Asn Val Asp Thr
71          85          90          95
73 Gly Pro Asp Tyr Tyr Arg Asp Met Asp Ile Gln Tyr His Gly Val Glu
74          100         105         110
76 Ala Asp Asp Leu Pro Thr Phe Asp Leu Ser Val Phe Phe Tyr Pro Ala
77          115         120         125
79 Ala Ala Phe Ile Asp Arg Ala Leu Ser Asp Asp His Ser Lys Ile Leu
80          130         135         140
82 Val His Cys Val Met Gly Arg Ser Arg Ser Ala Thr Leu Val Leu Ala
83 145          150         155         160
85 Tyr Leu Met Ile His Lys Asp Met Thr Leu Val Asp Ala Ile Gln Gln
86          165         170         175
88 Val Ala Lys Asn Arg Cys Val Leu Pro Asn Arg Gly Phe Leu Lys Gln
89          180         185         190
91 Leu Arg Glu Leu Asp Lys Gln Leu Val Gln Gln Arg Arg Arg Ser Gln
92          195         200         205
94 Arg Gln Asp Gly Glu Glu Glu Asp Gly Arg Glu Leu
95          210         215         220

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98 <210> SEQ ID NO: 3

99 <211> LENGTH: 19

100 <212> TYPE: PRT

101 <213> ORGANISM: Artificial Sequence

103 <220> FEATURE:

104 <223> OTHER INFORMATION: DSP-14 active site

106 <400> SEQUENCE: 3

107 Val His Cys Val Met Gly Arg Ser Arg Ser Ala Thr Leu Val Leu Ala

108 1 5 10 15

110 Tyr Leu Met

114 <210> SEQ ID NO: 4

115 <211> LENGTH: 24

116 <212> TYPE: PRT

117 <213> ORGANISM: Artificial Sequence

119 <220> FEATURE:

120 <223> OTHER INFORMATION: Conserved homology region derived from eight human DSPs

121 which contains the PTP active site signature motif.

123 <400> SEQUENCE: 4

124 Asn Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Gly

125 1 5 10 15

127 Thr Asn Ile Leu Ala Tyr Leu Met

128 20

131 <210> SEQ ID NO: 5

132 <211> LENGTH: 28

133 <212> TYPE: DNA

134 <213> ORGANISM: Artificial Sequence

136 <220> FEATURE:

137 <223> OTHER INFORMATION: Oligonucleotide primer

140 <400> SEQUENCE: 5

141 tggcgtccac cagggtcatg tccttggtg

28

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144 <210> SEQ ID NO: 6
145 <211> LENGTH: 28
146 <212> TYPE: DNA
147 <213> ORGANISM: Artificial Sequence
149 <220> FEATURE:
150 <223> OTHER INFORMATION: Oligonucleotide primer
153 <400> SEQUENCE: 6
154 cacaaggaca tgaccctggt ggacgcca                28
157 <210> SEQ ID NO: 7
158 <211> LENGTH: 22
159 <212> TYPE: DNA
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: Oligonucleotide primer
166 <400> SEQUENCE: 7
167 gccccagccg gtcagccacc ct                22
170 <210> SEQ ID NO: 8
171 <211> LENGTH: 170
172 <212> TYPE: PRT
173 <213> ORGANISM: Homo sapiens
175 <400> SEQUENCE: 8
176 Ser Asp Leu Asp Arg Asp Pro Asn Ser Ala Thr Asp Ser Asp Gly Ser
177   1          5          10          15
179 Pro Leu Ser Asn Ser Gln Pro Ser Phe Pro Val Glu Ile Leu Pro Phe
180          20          25          30
182 Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu
183          35          40          45
185 Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn
186          50          55          60
188 Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser
189   65          70          75          80
191 Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser
192          85          90          95
194 Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys
195          100         105         110
197 Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met
198          115         120         125
200 Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met
201          130         135         140
203 Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu
204 145          150         155         160
206 Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser
207          165         170
210 <210> SEQ ID NO: 9
211 <211> LENGTH: 168
212 <212> TYPE: PRT
213 <213> ORGANISM: Homo sapiens
215 <400> SEQUENCE: 9
216 Asp Arg Glu Leu Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val

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217      1              5              10              15
219 Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr
220              20              25              30
222 Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr
223              35              40              45
225 Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe
226              50              55              60
228 Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His
229      65              70              75              80
231 Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile
232              85              90              95
234 Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala
235              100             105             110
237 Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys
238              115             120             125
240 Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys
241      130             135             140
243 Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe
244 145             150             155             160
246 Glu Arg Thr Leu Gly Leu Ser Ser
247             165
250 <210> SEQ ID NO: 10
251 <211> LENGTH: 157
252 <212> TYPE: PRT
253 <213> ORGANISM: Homo sapiens
255 <400> SEQUENCE: 10
256 Gly Ala Thr Pro Pro Pro Val Gly Leu Arg Ala Ser Phe Pro Val Gln
257      1              5              10              15
259 Ile Leu Pro Asn Leu Tyr Leu Gly Ser Ala Arg Asp Ser Ala Asn Leu
260              20              25              30
262 Glu Ser Leu Ala Lys Leu Gly Ile Arg Tyr Ile Leu Asn Val Thr Pro
263              35              40              45
265 Asn Leu Pro Asn Phe Phe Glu Lys Asn Gly Asp Phe His Tyr Lys Gln
266              50              55              60
268 Ile Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Arg Phe Phe Pro
269      65              70              75              80
271 Glu Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly Val
272              85              90              95
274 Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr Val
275              100             105             110
277 Ala Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr Asp
278              115             120             125
280 Leu Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met
281      130             135             140
283 Gly Gln Leu Leu Asp Phe Glu Arg Ser Leu Arg Leu Glu
284 145             150             155
287 <210> SEQ ID NO: 11
288 <211> LENGTH: 170
289 <212> TYPE: PRT

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290 <213> ORGANISM: Homo sapiens
292 <400> SEQUENCE: 11
293 Gly Leu Cys Glu Gly Lys Pro Ala Ala Leu Leu Pro Met Ser Leu Ser
294   1           5           10           15
296 Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile Leu Pro
297           20           25           30
299 His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp Leu Met
300           35           40           45
302 Thr Gln Asn Gly Ile Ser Tyr Val Leu Asn Ala Ser Asn Ser Cys Pro
303           50           55           60
305 Lys Pro Asp Phe Ile Cys Glu Ser Arg Phe Met Arg Val Pro Ile Asn
306   65           70           75           80
308 Asp Asn Tyr Cys Glu Lys Leu Leu Pro Trp Leu Asp Lys Ser Ile Glu
309           85           90           95
311 Phe Ile Asp Lys Ala Lys Leu Ser Ser Cys Gln Val Ile Val His Cys
312           100          105          110
314 Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr Ile Met
315           115          120          125
317 Lys Thr Met Gly Met Ser Ser Asp Asp Ala Tyr Arg Phe Val Lys Asp
318           130          135          140
320 Arg Arg Pro Ser Ile Ser Pro Asn Phe Asn Phe Leu Gly Gln Leu Leu
321 145           150          155          160
323 Glu Tyr Glu Arg Thr Leu Lys Leu Leu Ala
324           165          170
327 <210> SEQ ID NO: 12
328 <211> LENGTH: 168
329 <212> TYPE: PRT
330 <213> ORGANISM: Homo sapiens
332 <400> SEQUENCE: 12
333 Pro Ala Gln Ala Leu Pro Pro Ala Gly Ala Glu Asn Ser Asn Ser Asp
334   1           5           10           15
336 Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
337           20           25           30
339 Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln Gly Leu
340           35           40           45
342 Gln Ala Cys Gly Ile Thr Ala Val Leu Asn Val Ser Ala Ser Cys Pro
343           50           55           60
345 Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val Glu Asp
346   65           70           75           80
348 Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile Ser Phe
349           85           90           95
351 Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His Cys Gln
352           100          105          110
354 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Ile Gln
355           115          120          125
357 Ser His Arg Val Arg Leu Asp Glu Ala Phe Asp Phe Val Lys Gln Arg
358           130          135          140
360 Arg Gly Val Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
361 145           150          155          160

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VERIFICATION SUMMARY

DATE: 01/02/2002

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